

Medical Schools Educate to Improve Everyone's Health

A Value to the Health of All: Diversity, Equity, and Inclusion in Medical Education, Research, and the Physician Workforce

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Medical schools provide evidence-based education programs to prepare the next generation of doctors to meet the health care needs of a growing, aging, and changing U.S. population. Those entrusted with the development of medical school curricula rely on evidence-based research, so that future doctors can learn the skills needed to treat their patients effectively. AAMC-member medical schools continue to be in the best position to identify how to prepare their students to meet the most pressing individual, public health, and overall health needs of our communities, and they must have the autonomy and flexibility to do so.

Existing medical school preparation includes, but is not limited to, a deep understanding of relevant scientific, medical, and technological principles, and the importance of communication skills. It also emphasizes the importance of patients' lived experiences and perceptions of their own health, and ensures comprehension of the roles that empathy, compassion, and trust play in delivering quality, comprehensive, and culturally responsive patient care.

Over the past five years, results from an annual AAMC survey of graduating medical students found that over 90% of students continually reported that they either agreed or strongly agreed that they were "adequately prepared to care for patients from different backgrounds." At its core, medical schools' efforts to incorporate diversity, equity, and inclusion (DEI) into medical education and their curricula are about helping future doctors better understand the specific issues that each patient is facing to provide better medical care. This goes beyond race, ethnicity, and language. Patients who are veterans, of different religions, disabled, or who live in rural areas, for example, have unique and specific life experiences, and doctors who understand those experiences can provide better care.

These efforts seek to address the long-standing and well-documented inequities in our health care system and their impacts on the health of patients and communities throughout the country. Our mission is to improve the health of people everywhere by preparing a workforce that is grounded in the biomedical sciences and practices "in the context of family and community."³

We aim for excellence in patient care, which cannot be optimized until we have a physician workforce capable of caring for all patients and their needs holistically, and the medical profession is made accessible to all qualified individuals.⁴ As many medical schools have identified, DEI efforts are critical tools that help us achieve these goals by better preparing physicians to provide medical care for all communities.⁵

Enhancing the Learning Environment

The evidence suggests that when it comes to learning environments in medical schools and the physician workforce, diverse, integrated teams can lead to better patient care for all.

 Medical education that incorporates DEI provides opportunities for all students to develop and improve professional skills that can allow them to provide better care for their future patients.

Evidence from higher education suggests that classroom diversity and informal interactions with those from different backgrounds can positively impact learning outcomes, such as active thinking and intellectual engagement for all students.⁶ Diverse perspectives and backgrounds in



classrooms, teams, and work settings can enrich educational and learning experiences,⁷ as well as exposure to a variety of faculty teaching strategies⁸:

Medical schools teach future physicians to incorporate skills needed to address individualized and personalized patient needs, including their cultural backgrounds. Skills that appropriately address aspects of a patient's background and experiences can help create a more effective patient-provider relationship and facilitate the delivery of quality health care. These are important skills for all future doctors to develop, not only for interacting with patients from historically marginalized backgrounds and communities that historically lack health care resources, but for caring for all patients, each of whom depends upon their physician's ability to engage in patient-centered care. Possessing competence in these skills may lead to better health outcomes when put into clinical practice.

- 2. Medical school classes composed of students and educators who represent diverse groups and backgrounds allow students to learn from perspectives and life experiences that are distinct from their own. These experiences can enhance students' abilities to better collaborate and practice in team-based care settings.
 When medical students have opportunities to collaborate and become familiar with each other's
 - When medical students have opportunities to collaborate and become familiar with each other's unique experiences, these interactions can result in improved confidence when working alongside individuals and patients who are different from themselves. Additionally, increasing a medical student's exposure to learning opportunities that involve diverse patient populations, students, and faculty members contributes to their skill-set, knowledge, and attitude regarding the benefits of diversity. In recent surveys of graduating medical students, the vast majority of respondents either agreed or strongly agreed that:
 - "Diversity within [their] medical school enhanced [their] training and skills to work with individuals from different backgrounds."
 - "[Their] knowledge or opinion was influenced or changed by becoming more aware of the perspectives of individuals from different backgrounds."

These surveys show that diverse medical school cohorts may enable medical students to better understand information or experiences that may be different from or even contrast with their own experiences, and to better deal with complex medical situations.

Increasing Access to Care for Medically Underserved Areas

Having a diverse physician workforce increases access to care for areas and populations that are historically medically underserved, including for military veterans, people with low socioeconomic statuses, recipients of Medicaid or Medicare, and those who live in rural and medically underserved areas.

Many individuals living in rural areas have limited access to primary and specialty health care. ¹⁴ The Health Resources and Services Administration identified more than 63% of U.S. counties as "whole county" primary care Health Professional Shortage Areas, highlighting geographic areas that are experiencing challenges in accessing care. ¹⁵ Physicians who come from rural backgrounds are more likely to practice in rural communities. ^{16,17}

Research also shows that medical professionals who are women or belong to racial and ethnic groups underrepresented in medicine are more likely to practice in medically underserved areas, care for medically underserved populations, or practice in primary care, ¹⁸ thereby helping to improve access to health care for these communities. ¹⁹⁻²³ Black, Hispanic, Latino, and Native American health professionals, for example, are more likely to practice in underserved communities. ^{21,24}



A 2021 report²⁵ from the Veterans Health Administration found that veterans with low socioeconomic statuses, who used the administration's services, experienced a wide range of disparities in communication, comprehensiveness, and self-management support, compared with those with higher socioeconomic statuses. Research also found that veterans have more health conditions — including coronary heart disease, skin cancer and other cancers, depressive disorders, diabetes, and stroke — compared with individuals who have not served in the military.²⁶ To mitigate these health disparities, innovative programs are being developed that both prioritize attracting veterans to health professions and support them during medical school. These programs will also aim to incorporate the unique experiences of veterans in medical education and training to help future physicians without military experience more effectively work alongside veterans.²⁷

Improving Health Care Encounters, Trust, and Communication, and Adherence to Medical Advice

There is evidence that improving communication and trust between clinicians and patients improves patient willingness to engage in prevention practices, adhere to medical advice, and follow prescribed treatment regimens.²⁸⁻³⁰

Patients report better health care encounters,³¹ improved trust,³² better patient-provider communication,³³ and improved adherence to medical advice³⁴ when they receive care from providers with similar racial, ethnic, linguistic, and cultural backgrounds as their own. This evidence is still emerging, and additional studies must be completed on this issue.

Some studies even show that patient-provider racial or gender concordance may contribute to reductions in hospitalizations for ambulatory care-sensitive conditions — including pneumonia, diabetes, and congestive heart failure — for older individuals, ³⁵ hospital mortality and readmission rates for patients receiving Medicare, ³⁶ and increased life expectancies for Black individuals. ³⁷

Other studies show the benefits of a diverse health care workforce on adverse maternal outcomes for Asian, Black, Hispanic, and Pacific Islander mothers.³⁸

There is also a growing body of research³⁹ that shows the benefits of patient-provider language concordance on health outcomes.

The diversity among perspectives and personal backgrounds of providers can improve their relationships with their patients and help them deliver care within the context of their patients' lives. For instance, "[r]ural physicians see value in conveying unique aspects of rural clinical practice during communication with urban specialists, including context and the complexities of patient transfers."⁴⁰

Enhancing Diversity in Research to Lead to the Next Medical Discovery

Diversity in the biomedical research workforce enhances the innovation,⁴¹ novelty, frequency, and significance of scientific research, which could lead to the next groundbreaking medical discovery.

Research has shown that identity-diverse groups can solve more complex problems than homogeneous groups. 42 This may mean that diverse research teams offer new approaches, spur innovation, and are better equipped to address the biggest challenges in alleviating health disparities. In a study of PhD dissertations spanning three decades, it was reported that students from underrepresented genders and racial groups produced higher rates of scientific novelty — that is, new ideas or unique perspectives — compared to their peers. 41

Another study⁴⁴ of over 6 million research papers spanning 20 years showed that, across the many medical subfields, teams composed of both women and men produced more novel research, and their



findings were more frequently referenced by other researchers, compared with papers produced by single-gender teams.

Additional research shows that diverse research groups produce more published research,⁴⁵ are cited more frequently,^{46,47} and can have complementary skills⁴⁸ that are beneficial to informing new scientific approaches.

Diversity and inclusion are core values in the *All of Us* Research Program of the National Institutes of Health: "Health care is more effective when people from all backgrounds are part of health research."

Conclusion

Collectively, the principles of DEI form a framework representing the efforts of medical schools to help future physicians provide quality care to all individuals in our society, and make medical education and careers accessible for all qualified individuals. The AAMC is committed to the DEI approach in education, research, and the physician workforce, because this approach will improve the health of people across the United States and beyond.

Glossary

DIVERSITY is a way to describe all aspects of humanity, including our individual differences, characteristics, and experiences. Diversity is the concept of including all people and valuing their differences.

"Diversity refers to all aspects of human differences including but not limited to socioeconomic status, race, ethnicity, language, nationality, sex, gender identity, sexual orientation, religion, geography (including rural and highly rural areas), disability, and age."⁵⁰

EQUITY recognizes that resources are unevenly distributed and considers the specific needs or circumstances of a person or group to provide the resources needed to help them be successful. Equity is different from equality.

For example, equitable support can be providing mentors and financial resources to prospective students who have the talents and abilities to enter medical school, but who do not have access to the support needed to pursue their career aspirations. Equity in the clinical care setting is about making sure that every patient — regardless of their identity, background, income, or education level — receives the care needed to help them live the healthiest life possible.

"[Equity r]efers to fairness and justice and is distinguished from equality. While equality means providing the same to all, equity requires recognizing that we do not all start from the same place"⁵¹

INCLUSION provides the opportunity and environment where everyone has a meaningful experience in and contributes toward our medical schools and health systems, and actively discourages environments and behaviors that can make others feel unwelcome, left out, or out of place.

Programs focused on inclusion ensure that everyone has a sense of belonging in medical school, regardless of their socioeconomic statuses, professions, or social statuses. In an inclusive environment, everyone has a seat at the table.

Inclusion means incorporating the experiences of patients from diverse backgrounds into medical curricula to ensure future doctors are aware of and can better address health care needs. For example,



one study demonstrated that integrating a disability awareness curriculum for undergraduate medical education improved medical students' attitudes toward people with disabilities.⁵² Learning from the experiences of patients from rural backgrounds, those from a wide variety of cultures and ethnicities, and those of lower socioeconomic statuses is critical for learning how to care for all.

"Inclusion is a core element for successfully achieving diversity. Inclusion is achieved by nurturing the climate and culture of the institution through professional development, education, policy, and practice. The objective is creating a climate that fosters belonging, respect, and value for all and encourages engagement and connection throughout the institution and community." ⁵³

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